

EM Apertures

Thin Film Apertures

Thin film gold apertures are slow to contaminate due to the film "running hot" in the electron beam and to the small critical edge. Optimum working conditions are therefore maintained for a longer period.

They may be cleaned *in-situ* when necessary by exposure to the focused electron beam. Time is saved as down-time is minimised as the vacuum is undisturbed and re-alignment is unnecessary. Thin film apertures are of course more fragile to handle than other apertures and can be irreparably damaged by abrasion or if subject to a sudden rush of air into the vacuum system. All aperture diameters are close tolerance ($\pm 1\mu\text{m}$).

Do not use thin film apertures in the condenser lens due to danger of melting.

Ordering information:

Please quote base number followed by hole size required.

3mm x 0.25mm apertures available in 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 90, 100, 200, 500 μm .

2mm x 0.6mm apertures available in 10, 15, 20, 25, 30, 40, 50, 60, 70, 100, 200 μm .

Examples

T193-100 3mm \varnothing aperture with 100 μm hole

T193-20 3mm \varnothing aperture with 20 μm hole

T195-100 2mm \varnothing aperture with 100 μm hole

T195-30 2mm aperture with 30 μm hole

10mm \varnothing Disc Apertures for Zeiss/LEO

10mm \varnothing x 0.1mm thick apertures in molybdenum or platinum for Zeiss and Cambridge/LEO SEM's. Available in 20, 50, 70, 150, 200, 300, 400, 600 and 1000 μm hole sizes.

Ordering information:

For **molybdenum** use prefix no. **A064** followed by hole size e.g. A064-0020 (20 μ), A064-0300 (300 μ), A064-1000 (1000 μ)

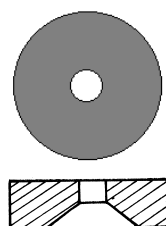
For **platinum** use prefix no. **A065** followed by hole size e.g. A065-0050 (50 μ), A065-0600 (600 μ)

EM Filaments and Apertures

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Disc Apertures

TAAB stocks a wide range of molybdenum and platinum (95:5 platinum/iridium alloy) apertures. These apertures are manufactured to the very highest standards of accuracy and cleanliness and they offer easy changeability and cleaning. Due to their ability to be heated to higher temperatures in a vacuum coating unit, molybdenum discs are easier to clean than platinum. An accepted way of cleaning platinum discs is to heat them in a butane flame with platinum tipped tweezers. Platinum apertures can be made with holes as small as 5µm whereas molybdenum is limited to 20µm. Some special apertures can be supplied in tantalum. The chart shows our currently stocked sizes but others may be in stock from time to time or can be ordered.



Disc Aperture Selection Chart

Metal Type & Description	5µ	10µ	20µ	25µ	30µ	40µ	50µ	70µ	100µ	150µ	200µ	250µ	300µ	400µ	500µ	600µ	750µ	1000µ	
Molybdenum 2mm Ø x 0.6mm		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Platinum 2mm Ø x 0.6mm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Molybdenum 3.04mm Ø x 0.25mm		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Platinum 3.04mm Ø x 0.25mm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Molybdenum 4mm Ø x 0.2mm		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Platinum 4mm Ø x 0.2mm		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Moly 10mm Ø x 0.1mm		•	•			•	•	•	•	•	•		•	•					•
Platinum 10mm Ø x 0.1mm		•	•			•	•	•	•	•	•		•	•					•
Platinum 12mm Ø x 0.1mm			•			•	•		•	•	•			•					
Molybdenum 12.68mm Ø x 0.25mm	Spray aperture															•			•
Molybdenum 10.5mm Ø x 0.25mm	Spray aperture															•			•
Platinum 10.5mm Ø x 0.25mm	Spray aperture															•			•

Ordering Information: When ordering please quote base catalogue no. followed by hole size of aperture required.

Examples; **A056-0020** (2mm Ø Molybdenum aperture with 20µm hole) **A059-0400** (3.04mm Ø Platinum aperture with 400µm hole)

A056 2mm Ø x 0.6mm Molybdenum aperture

A057 2mm Ø x 0.6mm Platinum aperture

A058 3.04mm Ø x 0.25mm Molybdenum aperture

A059 3.04mm Ø x 0.25mm Platinum aperture

A062 4mm Ø x 0.2mm Molybdenum aperture

A063 4mm Ø x 0.2mm Platinum aperture

A064 10mm Ø x 0.1mm Molybdenum aperture

A065 10mm x 0.1mm Platinum aperture

A071 12mm Ø x 0.1mm Platinum aperture

Spray Apertures

12.68mm Ø x 0.25mm thick used in Cambridge/LEO S2A, S4-10, S180 & Camscan SEM's.

10.5mm Ø x 0.25mm thick used in all Cambridge/LEO except the above models.

A060 12.68mm Ø x 0.25mm Molybdenum spray aperture

A069 10.5mm Ø x 0.25mm Molybdenum spray aperture

A061 10.5mm Ø x 0.25mm Platinum spray aperture

12.68mm spray apertures also available with hole sizes 1500 and 2000µm

10.5mm spray apertures also available with 2000µm hole